

**International Harmonized Research Activities - Intelligent Transport Systems
Working Group Meeting
April 16, 1999. Washington, DC**

Minutes

Attendees:

Dr. Ian Noy (Chairman, Transport Canada, Canada)
Mr. Chris Patten (Swedish National Road Administration, Sweden)
Mr. Daniel Augello (Renault, France)
Dr. August Burgett / Mr. Alhad Chande (NHTSA, U.S.)
Dr. med. B. Friedel (BASt, Germany)
Mr. Geoff Harvey (Department of Environment, Transport and the Regions, U.K.)
Dr. Kaneo Hiramatsu, (JARI, Japan)
Dr. Ray Kiefer (GM, U.S.)

1. Introduction.

Previous minutes approved. Dr. Hiramatsu distributed the document from the 4th IHRA-ITS WG on June 3, 1998 "Tentative Comparison of References: Rearrangement".

2. Activities.

2.1 Discussion of Workshop: Washington DC, April 14-15, 1999.

- The goal of the workshop was to identify priority research needs for ITS Safety test and evaluation. Four presentations gave overviews of the current state of knowledge in specific areas and the subsequent breakout groups used the Nominal Group Technique to identify research needs. Many positive comments were voiced concerning the workshop. The speakers were excellent. The nominal group technique was valuable for generating research ideas. It was conducive to open discussion and provided a noncritical environment for the interactive and productive exchange of ideas among researchers. It was valuable because it pointed up gaps in research and generated concrete proposals to address those research needs. It resulted in intrinsic benefits in reviewing the field and the information gained provided guidance to continue this kind of work. The participants expressed interest in participating in common projects.
- Although many research ideas were generated, participants were not always certain of goal/role of IHRA or how collaborative research would be implemented. When it came to voting some participants had difficulty using the criteria provided. Some

research institutes were not represented at the workshop. Future workshop may be even more focused.

- It was suggested that the results of the workshop should be shared with the European Commission. Ian Noy will follow up.
- Ian Noy will write to thank presenters, facilitators and participants.

2.2 Discussion of options for collaboration mechanism and funding.

The main purpose of this meeting is to consider how to implement collaborative research projects. There is an IHRA steering committee meeting in June and at that time this group must submit a progress report. It was noted that while participating countries have ongoing research in crashworthiness, there is not the same degree of effort on ITS safety at the national level due to a lack of relevant regulations.

Three specific approaches were discussed concerning international collaboration.

ITS Assessment Program. Chris Patten described a new Swedish initiative designed to provide consumer information to the public about the safety of ITS. This may eventually lead to standards but the initial purpose is public education. The knowledge generated by the evaluation of the ITS devices would generate further research and lead to improved standards. Sweden has held a national workshop in January (mostly VTI) and concluded that this was a feasible way to move forward. The current approach is very preliminary and envisions using scientists/experts to conduct the evaluation. Chris said this could be a European process though world-wide involvement would be preferable. Safety will be rated using a “star” system. Sweden would offer its consumer information to NCAP (New Car Assessment Program)

Ian Noy welcomed the opportunity for WG members to participate in this effort. If it were possible to develop and share evaluation methodology people could be involved early in the process and work on this initiative together.

Other related ongoing work was noted. The UK plans to expand EurNCAP to include crash avoidance. ITS assessment may be a future possibility. It was noted that it would be important to differentiate between specific systems and equipped vehicles (e.g., it is impossible to evaluate ACC independent of the vehicle). Other countries having NCAP such as Japan would be interested. It was mentioned that TNO has produced an intelligent cruise controls evaluation report. Some issues were raised: 1. Evaluation will be of separate ITS systems (no information on system integration) 2. Consistency in rating systems is desirable.

Chris Patten to organize an expert meeting in Sweden to determine evaluation protocol. WG members would be invited to send experts to share information and contribute to protocol development.

Expansion of European Statement of Principles. It was suggested the European Statement of Principles could be expanded to include principles reflecting the four main topics areas, namely direct safety, behavioural adaptation, workload and usability. It was further suggested that more detailed criteria could be developed for the various principles.

An alternative suggestion was to convene a group experts in each of the four areas to meet and produce a consensus document on current state-of-practice. Since many organizations and manufacturers have developed and used protocols to evaluate ITS products, it was suggested that expert groups could be formed to document useful protocols and indicate areas where further research is needed. The idea would be to outline the differences of opinion in the areas of the framework and indicate the need for research based on these discrepancies with the ultimate goal of developing a techniques toolbox. There was not consensus on this approach.

Workshop Projects. The WG discussed and prioritized the projects defined at the workshop. Eight of the original 16 projects were considered high priority. It was noted that several research centers have work already underway in many of the projects developed in the workshop. One way to go forward, therefore, is to develop networks of centres active in specific areas.

It was agreed that WG members would be assigned to lead each of the eight projects. The leaders would be responsible for establishing communication among the centres involved in the research and explore further means for collaboration.

The following is a preliminary list of priority projects, potential countries involved, and the WG member who will take the lead:

1. Development of a Harmonized Evaluation Framework (worldwide): already involved = Sweden, NHTSA, France; lead = Augello
2. Identification and measurement of the effects of false expectation of driver behavioral adaptation: already involved = Japan?; lead = Hiramatsu
3. Human factors principles checklist for vehicle control systems: already involved = Germany; lead = Friedel
4. Normative, Naturalistic Driving Behavior: NHTSA, lead = Burgett
5. Simulator reference test scenarios: already involved = Sweden, UK, NHTSA, Japan; lead = Patten
6. Improved secondary task methodology for evaluating safety effects of driver workload; already involved = Germany, Japan, Canada, NHTSA, Sweden; lead = Hiramatsu
7. Harmonization and validation of surrogate safety measures; not sure who is involved
8. Learning, acceptability, and retention of new systems: What can we learn and problems to avoid: Germany, VTI?; lead = Friedel

It was agreed that each WG member will survey work underway in their countries in each of the 8 project areas and provide this information to Ian Noy. Each potential research partner will be provided with descriptions of the projects including how they relate to safety and IHRA goals. The package will include descriptions of the 8 primary project areas and a brief questionnaire to be used for information gathering about ongoing and planned research activities.

Deadline for replies from Working Group members is September 15, 1999. Ian Noy will collate the data and forward list of identified research institutes to leaders of the 8 projects. The leaders will establish contact with all active research organizations in their topic area to determine the feasibility of instituting collaboration and information exchange. Each lead will report on prospects for collaboration by next meeting (October 18 in Stockholm).

Project Funding: Mr. Augello suggested a joint project to bring together expertise on safety evaluation. Renault has much basic data relevant to this. Statistical expertise is required and might be financed partially by the European Commission.

Alternatively, it may be possible to develop protocols for specific ITS applications. For example, if funding were available, ACC safety experts could jointly develop a framework to evaluate and categorize ACC systems.

It was suggested that DG XII be approached concerning funding. DGXIII should be approached directly by the IHRA-ITS WG as well as through countries' national representative in the DG 13 management committee.

Ian Noy will draft letter from IHRA-ITS WG, focusing on project 1, Harmonized Evaluation Framework, and indicating the need for international experience in industry and research to form an integral part of the project. The letter will be distributed to WG members for comment prior to sending to DG XIII. WG members agreed to arrange for high-level national letters of support for IHRA-DGXIII collaboration.

It was noted that other relevant DGs (e.g., III, VII) should be made aware of these activities.

With respect to the funding of new projects, it was noted that the issue of budgetary cycle is important. Geoff Harvey suggested the use of "placeholder money" to be set aside when a project is not yet fully specified. Dr. Friedel indicated that funding in principle is possible. August Burgett indicated that they are planning for 2002 projects although some funding might be available earlier.

Next Meeting. The next WG meeting to take place October 18, 1999 in Stockholm with 2 additional days for experts to meet with Swedish Group

Action Items:

- All WG members to survey research underway in their country in the 8 priority topic areas.
- All WG to forward replies from survey to Ian Noy no later than September 15, 1999.
- Chris Patten to organize expert meeting in Stockholm in October in conjunction with the next WG meeting. Chris to invite WG participation.
- All WG members to identify and arrange for experts to participate in Stockholm meeting on ITS Assessment Program (for consumer information).
- Ian Noy to draft letter to DG XIII (c.c. DG III & DG VII) concerning Development of the Harmonized Evaluation Framework (Worldwide).
- European WG member to arrange for high-level national letters of support for IHRA-DGXIII collaboration.
- Joanne Harbluk to revise 8 project descriptions and provide these and guidelines/forms
- Project leaders will establish contact with all active research organizations in their topic area and explore possible means for collaboration and information exchange.
- Each lead will report on the prospects for collaboration by the next meeting (October 18 in Stockholm).
- Chris Patten to host next WG meeting to take place October 18, 1999 in Stockholm